

Telefónica and NEC to build Open RAN live pilots in 4 global markets as a key milestone toward mass deployment

Jointly developing Al-driven, automated use cases

Madrid/Tokio, 14th September 2021.- <u>Telefónica</u> and <u>NEC Corporation</u> (NEC; TSE: 6701) announced today that they have entered an agreement to conduct Open Radio Access Network (Open RAN) pre-commercial trials in Telefonica's four core global markets: Spain, Germany, the UK and Brazil.

Telefónica is an early adopter of open networks and one of the major European operators that signed the Open RAN MoU in January this year, committing to the implementation and deployment of Open RAN solutions aimed at building more flexible, efficient and secure mobile networks in the 5G era. The company has a target of reaching 50% radio network growth based on Open RAN by 2025.

Following the successful milestones achieved through the trials in Telefónica Germany and the UK, under this agreement, NEC will serve as the prime system integrator to implement and conduct trials of multi-vendor-based Open RAN solutions with the Telefonica group's operating companies in four global markets, planned to scale to a total of at least 800 sites for commercial use starting in 2022.

The Open RAN solutions are comprised of an ecosystem of NEC's own products as well as software and hardware products of trusted industry leading partners. NEC's open 5G massive MIMO (mMIMO) radio units (RU) with advanced beamforming that significantly helps to increase/optimize network capacity will be a part of the ecosystem.

Furthermore, Telefónica and NEC will collaborate in validating and implementing cutting-edge Open RAN technologies and various use cases at the newly established Telefónica Technology and Automation Lab in Madrid. The use cases include those built on AI-driven Radio Intelligent Controllers (RIC) for RAN optimization, service lifecycle automation based on Service Management and Orchestration (SMO), testing and deployment automation in accordance with Telefónica's Continuous Integration/ Continuous Deployment (CI/CD) framework, as well as power savings optimization.

NEC's Global Open RAN Center of Excellence (CoE) in the UK will lead the integration and validation of the multi-vendor ecosystem and the joint development of innovative use cases with Telefónica leveraging its accumulated expertise.

"Open networks are undeniably the key to driving network evolution in the 5G era and to sustaining and fulfilling our mission of consistently delivering superior experiences to our consumer and enterprise customers," said Enrique Blanco, Chief Technology & Information Officer (CTIO) at Telefónica. "Through our long term engagement with NEC, we have firsthand knowledge of their technological and practical competence as well as their constant customer-first approach, and we are confident they are the right partners for this highly strategic initiative."

"We are extremely honored to be selected as the strategic partner for Telefónica's game-changing initiative that promises tremendous value and innovation in the long run," said Shigeru Okuya, Senior Vice President, NEC Corporation. "NEC and our subsidiary Netcracker's accumulated expertise among IT and networks is a valuable asset to help keep operators ahead of the curve in co-creating and redesigning the next generation mobile networks required in the 5G era and beyond."

About Telefónica

Telefónica is one of the largest telecommunications service providers in the world. The company offers fixed and mobile connectivity as well as a wide range of digital services for residential and business customers. With more than 367 million customers, Telefónica operates in Europe and Latin America. Telefónica is a 100% listed company and its shares are traded on the Spanish Stock Market and on those in New York and Lima. https://www.telefonica.com/en/home

About NEC Corporation

NEC Corporation has established itself as a leader in the integration of IT and network technologies while promoting the brand statement of "Orchestrating a brighter world." NEC enables businesses and communities to adapt to rapid changes taking place in both society and the market as it provides for the social values of safety, security, fairness and efficiency to promote a more sustainable world where everyone has the chance to reach their full potential. For more information, visit NEC at https://www.nec.com/.